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10/607,842	06/27/2003	Oliver H. Foehr	Z2002-702319	8471
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EXAMINER				
MILLA, MARK R				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/607,842

Applicant(s)

FOEHR ET AL.

Examiner

Mark R. Milia

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/16/10 has been entered. Currently, claims 1-6 and 25-35 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 6 is directed to a computer-readable

storage medium that covers signals per se, because the specification does not specify the type of computer-readable medium intended to be utilized, and therefore the claim covers both non-statutory subject matter and statutory subject matter. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 7,366,991 to Snapkauskas et al. in view of U.S. Patent Application Publication No. 2004/0015842 to Nanivadekar et al. and Matsuo (US 6,831,752).

Regarding claims 1 and 6, Snapkauskas discloses a method and computer software, residing on a computer-readable storage medium, for customizing a standard user interface comprising the steps of: associating each item of a first plurality of items of a standard user interface data structure with a respective first object of a first plurality of first objects, each first object of the first plurality of first objects and each first object of the first plurality of first objects having a first object interface through which it

communicates with a respective item of the first plurality of items (see Fig. 4 and column 8 line 33-column 9 line 10, a default user interface is made up of associated definition files and content items), associating each item of a second plurality of items of a customized user interface with a respective second object of a second plurality of second objects, each second object of the second plurality of second objects having a second object interface through which it communicates with a respective item of the second plurality of items (see column 12 lines 57-62 and column 14 lines 26-33, a custom user interface is made up of associated definition files and content items), setting a parameter of each respective item of the first plurality of items of the standard user interface data structure to a value that hides each respective item of the first plurality of items of the standard user interface data structure from view of a user (see column 16 lines 32-38 and column 17 lines 1-13, either a default user interface is displayed or a custom user interface is displayed based on a select by a user), replacing the standard user interface with the customized user interface (see Fig. 3 and column 7 lines 4-8, if a custom user interface is selected by a user then the custom user interface is displayed instead of the default user interface), displaying only the customized user interface while hiding the standard user interface from the view of the user (see column 15 lines 53-65 and column 17 lines 1-13, if a custom user interface is selected by a user then the custom user interface is displayed instead of the default user interface).

Snapkauskas does not disclose expressly linking a first identifier of each respective first object of the first plurality of first objects to a second identifier of each

respective second object of the second plurality of second objects through a software interface, hiding each respective item of the plurality of items of the standard user interface structure from view of a user, displaying only the customized user interface while hiding the standard user interface from the view of the user, and enabling each item of the second plurality of items to communicate with the universal printer driver through the customized user interface by accessing each respective first object of the first plurality of first objects through the respective second object to which it is linked.

Matsuo discloses customizing a standard user interface associated with a universal printer driver: associating each item of a first plurality of items of a standard user interface data structure with a respective first object of a first plurality of first objects, each first object of the first plurality of first objects communicating with the universal printer driver and each first object of the first plurality of first objects having a first object interface through which it communicates with a respective item of the first plurality of items (see Figs. 7-10 and column 3 lines 2-11 and 19-24, standard user interface is the interface displayed to the user prior to the user making any changes/modifications/customizations, the plurality of items being such things as paper size, pages per sheet, orientation, etc., which are part of the object paper), associating each item of a second plurality of items of a customized user interface to with a respective second object of a second plurality of second objects, each second object of the second plurality of second objects having a second object interface through which it communicates with a respective item of the second plurality of items (see Figs. 7-10 and column 3 lines 2-11 and 19-24, customized user interface is the interface displayed

to the user after the user makes changes/modifications, the plurality of items being such things as paper size, pages per sheet, orientation, etc., which are part of the object paper), linking each respective first object of the first plurality of first objects to a respective second object of the second plurality of second objects through a software interface, the software interface facilitating communication between the each respective first and second object that are linked together by linking the first object interface of the respective first object to the second object interface of the respective second object (see column 4 lines 51-62 and column 4 lines 1-21, reference states that a user can change a variety of settings and save such settings, thereby having a plurality of sets of settings for one device utilizing only one device driver, the user interfaces that are displayed to the user, whether it is the standard user interface or the customized user interface, utilize the same device driver therefore the objects are linked because the same device driver is used to perform printing, based on the settings of either the standard user interface or customized user interface), displaying the customized user interface (see Figs. 7-10) and enabling each item of the second plurality of items to communicate with the universal printer driver through the customized user interface (see column 4 lines 51-62 and column 4 lines 1-21, the customized user interface utilizes the same device driver therefore the objects enable the same settings of the device driver that the standard user interface does).

Nanivadekar discloses linking a first identifier of each respective first object of the first plurality of first objects to a second identifier of each respective second object of the second plurality of second objects through a software interface (see Fig. 7 and

paragraphs 72, 76-77, 82, and 96, a custom user interface is created by linking task objects, which are equivalent to identifiers, to task objects of a default user interface, reference further states that user interface forms can be linked via task objects, the task objects having various functions including describing and executing associations) and enabling access to each respective first object of the first plurality of first objects through the customized user interface by accessing the respective second object to which it is linked (see Fig. 7 and paragraphs 72, 76-77, 82, and 96, a custom user interface is created by linking task objects, which are equivalent to identifiers, to task objects of a default user interface).

Snapkauskas, Matsuo & Nanivadekar are combinable because they are from similar fields of endeavor, graphical user interfaces.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine linking of identifiers for items of a custom user interface with identifiers for items of a standard or default user interface, as described by Nanivadekar, and the customizing of a user interface to control a device driver, as described by Matsuo, with the system of Snapkauskas.

The suggestion/motivation for doing so would have been to provide user interface screens that are configured correctly for any display device, such as personal digital assistants or cell phones, and allow a user to view only the items he/she desires without the need to decompile or recode a software module, thereby increasing efficiency and overall usability.

Therefore, it would have been obvious to combine Snapkauskas, with Matsuo and Nanivadekar to obtain the invention as specified in claims 1 and 6.

Regarding claim 2, Snapkauskas further discloses wherein the step of displaying comprises accessing a definition file, the definition file comprising information related to the customized user interface (see column 17 lines 1-13, when a custom user interface is created a content display file can be modified, which is a definition file).

Regarding claim 3, Matsuo further discloses wherein the information related to the customized user interface comprises at least one additional item compatible with the standard user interface structure (see column 3 lines 2-24, reference states certain settings rarely change, such as port settings).

Regarding claim 4, Matsuo further discloses the step of filtering at least one item of the standard user interface data structure based upon whether the at least one item is supported by a printer selected by the user prior to the displaying step (see Figs. 7-10, column 3 lines 50-54 and column 5 lines 2-6, property screens of the printer are shown and only those options which are supported by the printer would be displayed for selection).

Regarding claim 5, Matsuo further discloses wherein the filtering step comprises writing to a file, the file comprising data related to a state of at least one constant, the state of the at least one constant being determinative of inclusion in the standard user interface data structure (see column 3 lines 12-18, constants are things such as port settings and share settings that rarely change).

6. Claims 25-26 and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snapkauskas, Matsuo and Nanivadekar as applied to claims 1 and 6 above, and further in view of Iwai (US 2002/0163660) and Yamagata et al. (US 7,053,895).

Regarding claims 25 and 26, Matsuo discloses extending a rendering capability of the universal printer driver (see Fig. 3 and column 3 lines 28-32).

Snapkauskas, Matsuo and Nanivadekar do not disclose expressly extending a rendering capability of the universal printer driver by associating object type information with a banding bitmap of the universal printer driver, the banding bitmap for use in rendering image information, generating a tagging bitmap, the tagging bitmap having substantially similar boundaries as the banding bitmap of the universal printer driver, intercepting a drawing call to the banding bitmap, the drawing call comprising a drawing function and an object type related to the drawing function, storing the object type associated with the drawing call in the tagging bitmap, performing error correction of the object type stored in the tagging bitmap, and incorporating the object type stored in the tagging bitmap with the image information of the banding bitmap to render a final output.

Iwai discloses extending a rendering capability of the universal printer driver by associating object type information with a banding bitmap of the universal printer driver, the banding bitmap for use in rendering image information (see paragraphs 87-89 and 92-93, print data is rendered in units of bands), generating a tagging bitmap, the tagging bitmap having substantially similar boundaries as the banding bitmap of the universal

printer driver (see paragraphs 87-89 and 92-93, print data is rendered in units of bands), intercepting a drawing call to the banding bitmap, the drawing call comprising a drawing function and an object type related to the drawing function (see paragraphs 100 and 103-104, intermediate print data is created from received print data that adds information regarding information such as size or paper, orientation, margins, color information etc.), storing the object type associated with the drawing call in the tagging bitmap (see paragraph 110), and incorporating the object type stored in the tagging bitmap with the image information of the banding bitmap to render a final output (see paragraphs 87-89 and 92-93, actual-data-for-printing is created from the intermediate print data that contains information regarding color and other parameters).

Yamagata discloses performing error correction of the object type stored in the tagging bitmap (see column 5 line 62-column 6 line 5 and column 14 line 63-column 15 line 2, reference states that during image processing error/color correction may be performed).

Snapkauskas, Matsuo, Nanivadekar, Iwai, & Yamagata are combinable because they are from similar fields of endeavor, utilization of user interfaces.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the error correction, as described by Yamagata, and which is well known and commonly used in the art, and the rendering capabilities of a universal printer driver and the banding bitmap rendering of image data, as described by Iwai, with the system of Snapkauskas, Matsuo and Nanivadekar.

The suggestion/motivation for doing so would have been to increase processing speed and decrease the amount of printer memory necessary by limiting the size of image data to that of a band and processing a plurality of bands to complete an entire print job and correct errors that may occur during image/data capture to thereby create the best possible reproduction.

Therefore, it would have been obvious to combine Iwai and Yamagata with Snapkauskas, Matsuo and Nanivadekar to obtain the invention as specified in claims 25 and 26.

Regarding claim 28, Yamagata further discloses wherein the step of performing error correction comprises performing error correction related to raster operation functions (see column 5 line 62-column 6 line 5).

Regarding claim 29, Yamagata further discloses wherein the step of storing comprises storing information related to a half-tone filter (see column 6 line 1, reference states that during image processing halftone processing may be performed).

Regarding claim 30, Yamagata further discloses, wherein the information related to the half-tone filter comprises information determinative of the half-tone filter to apply to the image information on a pixel by pixel basis (see column 5 line 62-column 6 line 5, column 10 lines 22-28, and column 11 lines 42-46).

Regarding claim 31, Iwai further discloses wherein the step of storing comprises storing information related to color management (see paragraphs 100 and 103-104, intermediate print data is created from received print data that adds information

regarding information such as size or paper, orientation, margins, color information etc.).

Regarding claim 32, Iwai further discloses wherein the color management relates to converting from an input color space to an output color space on a pixel-by-pixel basis (see paragraphs 93, 103, 104, and 165, color data is stored on a pixel basis therefore it is obvious that conversion would take place on a pixel basis as well).

Regarding claim 33, Iwai further discloses wherein the color management relates to black-generation (see paragraph 194).

Regarding claim 34, Iwai further discloses wherein the object type stored in the tagging bitmap facilitates white space skipping (see paragraphs 101-104, color data is stored on a pixel basis and from which line data is created utilizing pixel count in both the x and y direction and to create "band" size print data thereby facilitating white space skipping).

Regarding claim 35, Iwai further discloses wherein the object type stored in the tagging bitmap facilitates transition determination (see paragraph 194, color space conversion for color printing or conversion for monochrome printing is determined and based on the determination the appropriate image processing is performed to create print data).

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Snapkauskas, Matsuo, Nanivadekar, Iwai, and Yamagata as applied to claim 26 above, and further in view of U.S. Patent No. 7,046,818 to Ratnaker et al.

Snapkauskas, Matsuo, Nanivadekar, Iwai, and Yamagata do not disclose expressly a step of preprocessing the image information of the banding bitmap by alpha-blending a watermark image with the image information.

Ratnaker discloses a step of preprocessing the image information of the banding bitmap by alpha-blending a watermark image with the image information (see column 4 lines 44-47).

Snapkauskas, Matsuo, Nanivadekar, Iwai, Yamagata & Ratnaker are combinable because they are from a similar field of endeavor, utilization of user interfaces.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the watermarking, as described by Ratnaker, and which is well known and commonly used in the art, with the system of Snapkauskas, Matsuo, Nanivadekar, Iwai, and Yamagata.

The suggestion/motivation for doing so would have been to prevent or discourage unauthorized use of an image.

Therefore, it would have been obvious to combine Ratnaker with Snapkauskas, Matsuo, Nanivadekar, Iwai, and Yamagata to obtain the invention as specified in claim 27.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art please refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

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/Mark R. Milia/
Examiner, Art Unit 2625

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Supervisory Patent Examiner, Art Unit 2625